

EMRI as A Sustainable Model

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Abstract

This paper deals with studying financial aspects of a non-profit organization like Emergency Response Services (EMS) in India, GVK-EMRI in particular. GVK-EMRI runs the 108 ambulance service across the country. A detailed analysis has been done on sources of revenue and application of the same. Also, the areas of operational costs have been researched in order to suggest measures to reduce these costs. The overall aim of the study is to suggest alternative sources of revenue for such non-profit organizations such that they become financially sustainable business models. The findings of the study are that such organizations cannot sustain without heavy government-fund infusion. The only way to make it financially sustainable is to increase the proportion of revenue from alternative sources. It has been found that salaries of the employees occupies lion's share of expenditure.

Keywords: Financial Sustainability; non-profit organization; alternative sources; operational costs.

1. Introduction

GVK EMRI (Emergency Management & Research Institute), an integral part of GVK's Corporate Social Responsibility (CSR) efforts, is a non-profit organization whose efforts include management of India's Emergency Response Service. The organization runs on a Public Private Partnership (PPP) model where the funding come from the Government and the intellectual property contribution is by, GVK. GVK EMRI handles medical, police and fire emergencies through the "1-0-8 Emergency service". This is a free service delivered through state- of -art emergency call response centres and has over 4785 ambulances across 13 states and 2 Union Territories. With a vision to respond to 30 million emergencies and save 1 million lives annually, GVK EMRI is set to expand its fleet and services set to spread across more states. With increased focus on research and analytics, GVK EMRI has plans to significantly improve the overall emergency management scenario - further reducing individual suffering. 1-0-8 Emergency Response Service is a 24X7 emergency service for medical, police and fire emergencies. This is a toll free number accessible from landline or mobile handset. Emergency help will reach you on an average 18 minutes.

2. Literature Review

Emergency Response Services and rescue services are organizations which ensure public safety and health by addressing different emergencies. Some of these agencies exist solely for addressing certain types of emergencies like fire, medical whilst others deal with ad hoc emergencies as part of their normal responsibilities. Many of these agencies promote community awareness and prevention programs to help the public avoid, detect, and report emergencies effectively (http://en.wikipedia.org/wiki/Emergency_service). Effective emergency service management requires support services from different agencies to work closely together and to have open lines of communication. Patient allocation to hospitals by Emergency response services with different in-hospital technologies is endogenous and must be treated with an instrumental variables approach (McClellan and Newhouse, 1997). The mechanism of allocating patients to hospitals can also have unintended consequences, in that it affects the incentives of hospitals to adopt various trauma technologies (Vogt, 1997). A common measurement in benchmarking the efficacy of emergency services is response time, the amount of time that it takes for emergency service providers to arrive at the scene of an incident after the emergency response system was activated. Due to the nature of emergencies, fast response times are often a critical component of the emergency service system. Various medical procedures including CPR and defibrillation could contribute to survival of the patient in case of a cardiac problem (Bonnin, et al., 1993; and Tresch, et al., 1989). Reduction in the time elapsed between initial collapse of a patient and the administration of CPR and defibrillation could increase probability of survival (Lewis et al., 1982; Larsen et al., 1993). Emergency response services require substantial investments in information technology and telecommunications yet it is difficult to measure productivity of these investments accurately (Griliches 1994; Bresnahan and Gordon 1997). CodeBlue integrates sensor nodes and other wireless devices into a disaster response setting and provides facilities for ad hoc network formation, resource naming and discovery, security, and in-network aggregation of sensor-produced data. CodeBlue is designed for rapidly changing, critical care environments (Lorincz et al., 2004). There would always be work-related stress associated with employment in the emergency services. Critical Incident Stress Debriefing (CISD) is one intervention that is currently employed with emergency service workers (Wagner, 2005). Over

reaction to minor incidents and under reaction to critical emergencies is a frequent re-occurrence under ad hoc systems (Gibson 1977; Siler 1975). Exercise and fitness can help foster a healthy and thriving workforce that takes less sick leaves and feels better prepared to cope with chronic stress (Markus et al., 2010).

3. Statement of problem

EMRI being a not-for-profit organization, it is quite challenging to focus on financial sustainability without sacrificing mission objectives. This balancing act between outreach and sustainability makes the study interesting.

4. Objectives

The current research was undertaken to achieve the following objectives:

- To examine the current sources of revenue for GVK-EMRI.
- To suggest alternative sources of revenue.
- To identify operational areas for cost reduction.
- To suggest measures for cost reduction.

Primary data is collected through focus group interviews with the senior executives of the company in order to get a view of the functioning of the company and to obtain information which may not be found through external sources such as books, journals, newspapers, etc. Secondary data for this study is used from already existing sources like, news papers, magazines, journals, company brochures, company's annual reports, MOU's with Government, Census reports, Government reports, internet etc. The data analysis was conducted using simple statistical tools like percentages, averages and measures of dispersion.

4.1 Objective 1

First objective of the current research was to examine the current sources of revenue for GVK-EMRI. Sources of revenue for GVK-EMRI for the year ending 31-03-2012 are shown in Table 1.

Table 1 present the current sources of revenue to GVK group. 26.6%, of the sources are from unsecured loans, term loans and overdraft from bank, 11.8% from sundry creditors, 20.23% are cash and bank balances and interest earned from banks, 16.86% is government grant-in-aid, 23.02% is corpus fund and EMT training fees is 1.44%. As can be seen from the table, EMRI is mostly a government-grant based organization. Its primary source of revenue is in the form of grants from the government. It also has other sources of revenue such as income from training and interest income from bank deposits.

4.2 Objective 2

Second objective of the current research was to suggest alternative sources of revenue so that GVK-EMRI can become sustainable. The company should start hosting periodic fund raisers. This can be done by organizing events such as- fashion shows, plays, dance shows, movie screenings, carnivals, etc. All the proceeds of these events will be pumped into the system as additional revenue. This will also make the service more visible.

The company should try and increase the individual and corporate donations that it receives. This can be done by increasing advertising on digital platforms, displaying the contact numbers and procedures for donations. Also, the website should have a page exclusively catering to the donation procedures.

Corporate donations can be increased by having tie-ups with Multi-National Companies (MNCs) and other companies as a part of their Corporate Social Responsibility activities. For example, a manufacturing company can donate a certain amount of money to EMRI per unit their product sale.

Donation boxes can be put up at restaurants, cinema halls and other public places. EMRI can also start product sales. Since the company is already into medical care, it can start selling first-aid kits at medical stores.

Also, the company can start publishing a periodic journal/magazine, completely dedicated to healthcare. The proceeds from sales and subscription of magazine would be additional source of revenue.

4.3 Objective 3

Third objective of the current research was to identify operational areas for cost reduction. From Table 2 we know the top 5 operational areas using up maximum funds for the years 2011 and 2012. Table 2 presents the areas of operational costs for the year ending 2011. 65% of the expenses are salaries, 28% fuel costs and ambulance repairs and maintenance, 4% medical consumables and 3% are travel expenses. Major chunk of the expenses are salaries of employees followed by fuel costs and repairs. Figure 1 is a pie chart depicting the proportion of the expenses to the total expenditure during the year from Table 2. Table 3 presents the areas of operational costs for the year ending 2012. 58% of the expenses are salaries, 30% fuel costs and ambulance repairs and maintenance, 8% professional expenses and 4% are travel expenses. Major chunk of the expenses are salaries of employees followed by fuel costs and repairs. When compared to year 2011, salaries expense has come down by 7% and fuel costs and repairs have increased by 2%. Figure 2 is a pie chart depicting the

proportion of the expenses to the total expenditure during the year from Table 3.

Service fee—EMRI provides emergency services free-of-cost to citizens, since its services are funded by the government. EMRI believes this is crucial for developing countries, where income disparities are very large and the poor are at a massive disadvantage. Public Private Partnership is essential for sustaining a highly complex public service like EMS.

Cost per case handled— EMRI's cost per case handled is close to USD10 (varying between USD 8 to 12). This is dramatically lower than the cost of service in developed countries. For example, in the UK, each case costs USD 350; in Canada, USD500; and in Germany and Austria this figure is USD 450. EMRI's low-cost model has been possible due to low labour costs and some fundamental design reforms. Some of the design choices that EMRI has made to reduce its operational costs, for instance, include the integration of sense, reach and care, the use of new low-cost technology, and a light-weight service catalogue.

4.4 Objective 4

Fourth objective of the current research was to suggest measures for cost reduction. Salaries, fuel, ambulance repairs and maintenance, travel and professional expenses are areas we looked into for possible cost reduction.

Salaries—Recruit more people who would be willing to work as volunteers. These volunteers will be recruited for a period of one year and will be awarded service certificates at the end of the year. Since this sort of voluntary service is given high weightage during interviews, it would motivate more people to help out during their free time. College students, women and retired people can be targeted for this purpose.

It would be easier for the company to hire more contract workers and reduce the number of permanent employees. For example, the housekeeping staff, security, ambulance pilots, etc. can be hired on weekly contracts such that their pay is also given on a daily/weekly basis. This would reduce the burden on the organisation.

Employees should be cross-trained. For example, the pilot of the ambulance should be trained to give basic medical assistance. This way the number of employees per patient can be reduced as one person can perform the duties of 2 or 3 employees.

The number of employees per patient must be reduced. The ambulance should have only 2 persons at any point in time- the pilot and the medical assistant. Also, some of the work needs to be outsourced at competitive rates and repetitive operations should be automated. The salaries should be divided into variable and fixed components such that the variable component is more. This will ensure that there is target based compensation and reduces the fixed salary component.

Fuel Costs—As government is planning for de-regulation of diesel prices, the fuel costs can widely vary and affect the overall expenses. Compressed Natural Gas (CNG) can be an alternative fuel to diesel, considered to be safe and environment friendly; it reduces the fuel costs as CNG gives more mileage for vehicles. The company must have enough ambulances so that each ambulance covers a radius of 5 kilometres only. This way the fuel costs will be controlled. A check should be kept on the whereabouts of the ambulance using Global Positioning System (GPS) when not on duty to ensure that they are not being misused for any other purposes. Should propose to government for exemption of surcharges, state and central taxes on fuel used for 108 services as it is a free service to the public. Emergency roads, which are free from traffic, are to be proposed for these types of services. This way mileage can be increased and fuel costs can be cut down.

Ambulance Repairs & Maintenance—Cost of repairs of ambulances can be controlled by ensuring that the ambulances are serviced regularly after a set number of kilometres are covered. This will ensure that there are no heavy damages and hence the costs will be restricted to regular servicing only. As ambulances are always driven fast to ensure timely medical aid, it is important that the drivers are trained, qualified and experienced. This will help in ensuring that there are no accidents which would result in an increase in repair costs. Ambulance should always be serviced at company operated service stations and genuine company spare parts are only to be used.

Travel Expenses—In the last one year travel expenses have increased by over 100%. This has been a result of expansion of the company. The company has increased its reach to more states and union territories in the last one year and hence more executives are travelling in order to achieve this expansion. These costs can be reduced by ensuring that there are strict guidelines on the modes and class of travels for various levels of management. Tie ups with airlines, travel agencies, and hotels would reduce the costs.

Professional Charges—Negotiate with the appointed lawyers, chartered accountants and other consultants to reduce fee. Fee can be paid on case to case basis instead of a regular time-based pay. Legal hassles should be reduced to ensure less use of legal services, thereby reducing professional charges.

5. Practical Implications

A timely response and care is essential in saving lives and property of citizens in emergencies and the role of the Governments are equally crucial in providing relief through its agencies such as police, fire, medical and other government departments. The pro-active Government of Andhra Pradesh has acknowledged the significance of

their role and also importance of working in partnership with private agencies such as EMS providers and other service providers such as hospitals, blood banks, ambulances, telecom service providers and donors (individual, body corporate or non-government organizations). To take this concept further, the various state Governments have committed to assist GVK EMRI in regulatory aspects, Channelizing funds, leveraging infrastructure, promoting public awareness etc.

6. Conclusions & Recommendations

The following are the conclusions from the study: Non-Profit government organisations mostly run on government aid; this is their primary source of revenue often running into hundreds of crores. It is difficult to make such a large scale organisation self-sustainable. Government funding is of utmost importance. Though government funding is necessary, such organisations can work on suggested alternative sources of revenue to reduce dependence on the government. Salaries of employees followed by fuel costs and repairs and maintenance of ambulances are the biggest areas of expenditure. The organisation should look into the cost reduction measures suggested.

7. Scope and Limitations of the Study

The study is limited to GVK EMRI services only. End users of EMRI services have not been interviewed. Qualitative benefits of EMRI services not studied.

8. Scope for Further Research

This study concentrates on financial aspects of the organisation; there is a scope for studying qualitative aspects of EMRI services.

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Figures & Tables

Table 1: Current Sources of Revenue

Corpus Fund	`71,06,55,000	23.02%
Govt. Grant-In-Aid Unutilised	`52,03,83,560	16.86%
Unsecured Loans	`54,70,17,343	17.72%
Term Loan from Axis Bank	`6,03,95,247	1.95%
Overdraft from Axis Bank	`21,38,73,391	6.93%
Cash and Bank Balances	`59,24,90,536	19.19%
Sundry Creditors	`36,42,90,142	11.80%
Interest earned from Banks	`3,22,06,900	1.04%
EMT Training Fees	`4,47,17,476	1.44%
TOTAL	`3,08,60,29,595	100%

Table 2: Areas of Operational Costs-2011

Expenditure	Amount (`)
Salaries	17963,48,020
Fuel Costs	5916,25,265
Ambulance Repairs & Maintenance	2007,77,377
Medical Consumables	985,38,269
Travel Expenditure	947,21,919
Total	2782010850

Table 3: Areas of Operational Costs-2012

Expenditure	Amount `
Salaries	16541,55,694
Fuel Costs	6331,95,177
Ambulance Repairs & Maintenance	2343,16,877
Travel Expenditure	2254,72,042
Professional Charges	1122,86,410
Total	2859426200

Figure 1: Areas of Operational Costs-2011

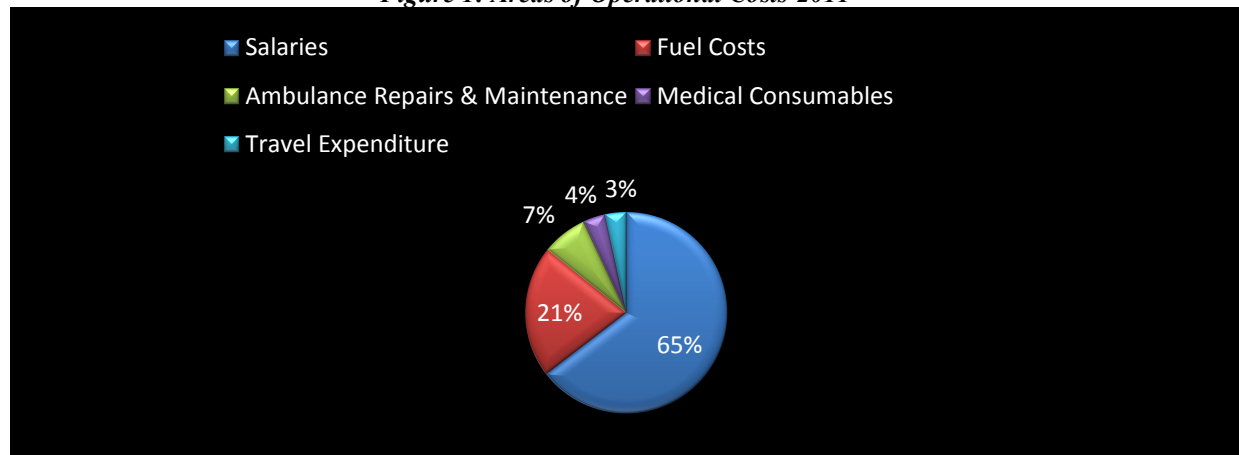
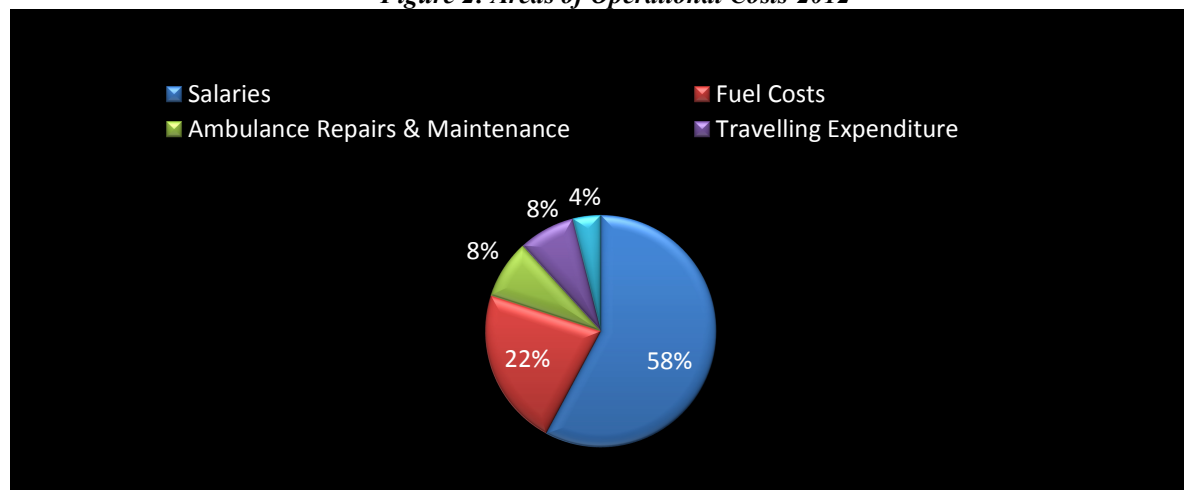


Figure 2: Areas of Operational Costs-2012



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